



**Equipment Engineering and Quality Assurance
Technical Specification**

**Specification:
EE&QA-886**

OCS Inspection Car Consist Procurement

Appendix E: MBTA Existing Equipment and Drawings

Page: -

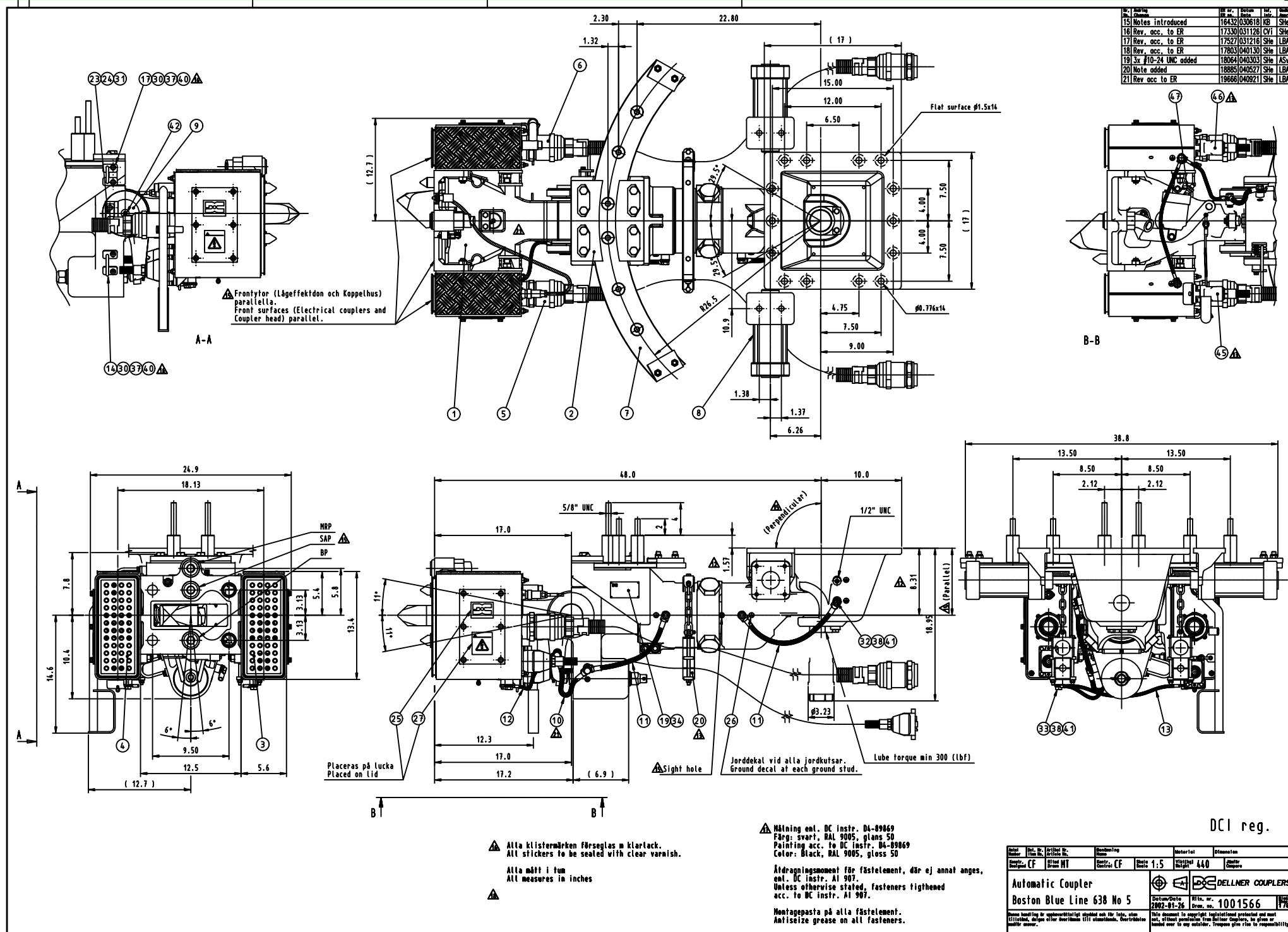
Date: December 19, 2017

Revised: November 25, 2020

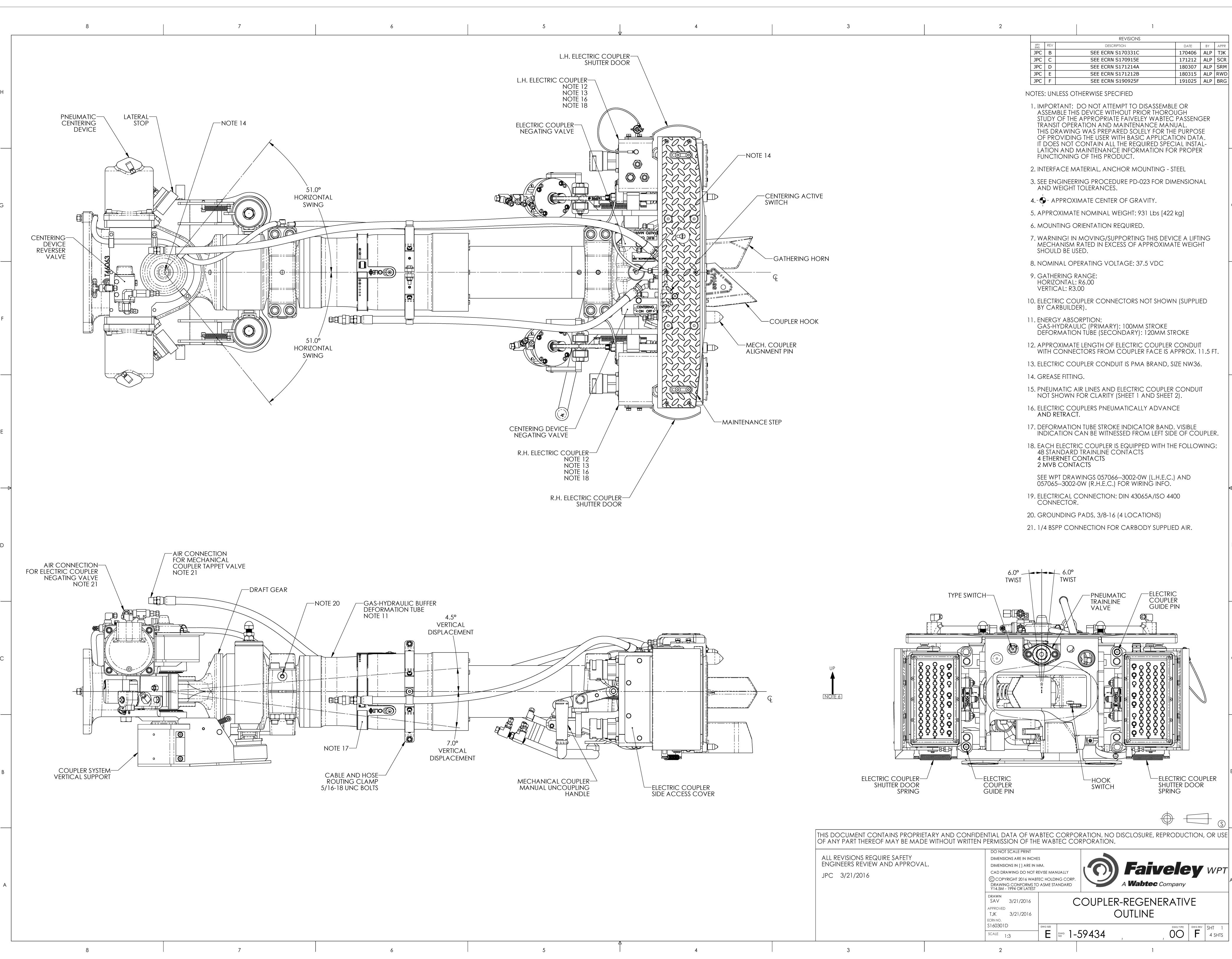
Revision: 2.0

Appendix E

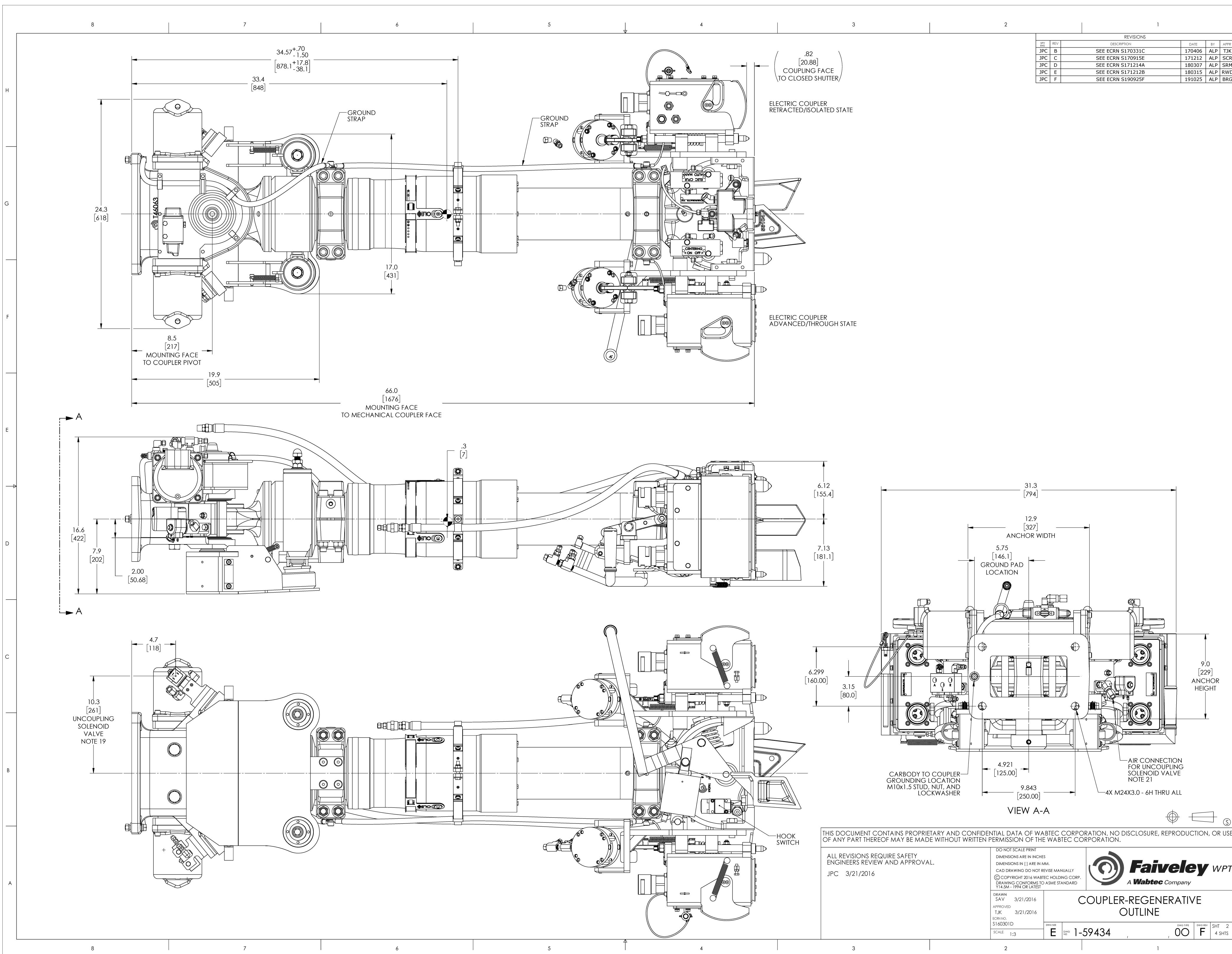
MBTA Existing Equipment and Drawings



REV	ECOS	DESCRIPTION	DATE	NAME
A	00038691	UPDATED	2018/08/21	14367
B	00190794	DRAWING UPDATED	2019/10/31	14686



REVISIONS			
REV	ECOS	DESCRIPTION	DATE
A	00038691	UPDATED	2018/08/21 14367
B	00190794	DRAWING UPDATED	2019/10/31 14686

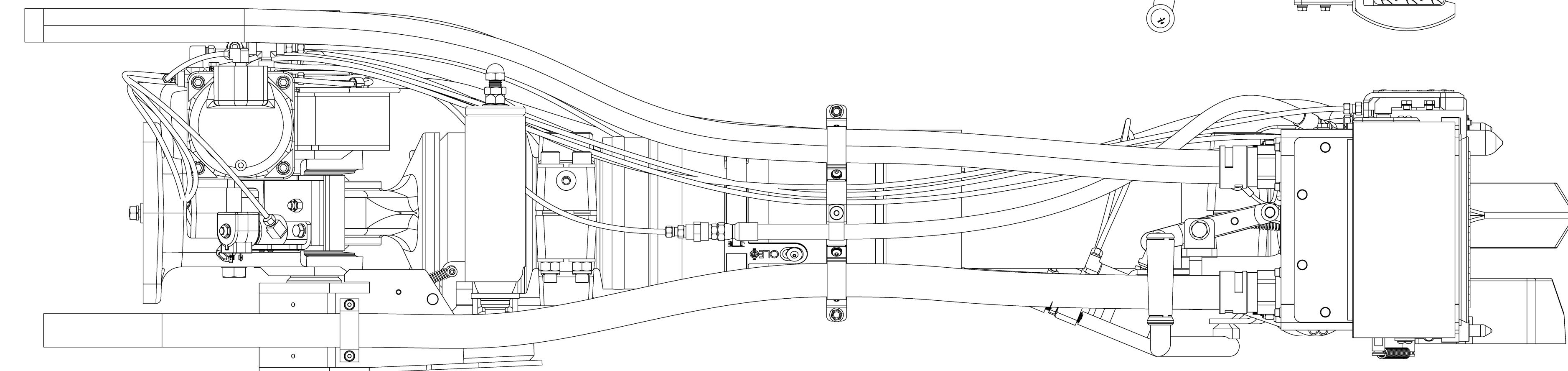
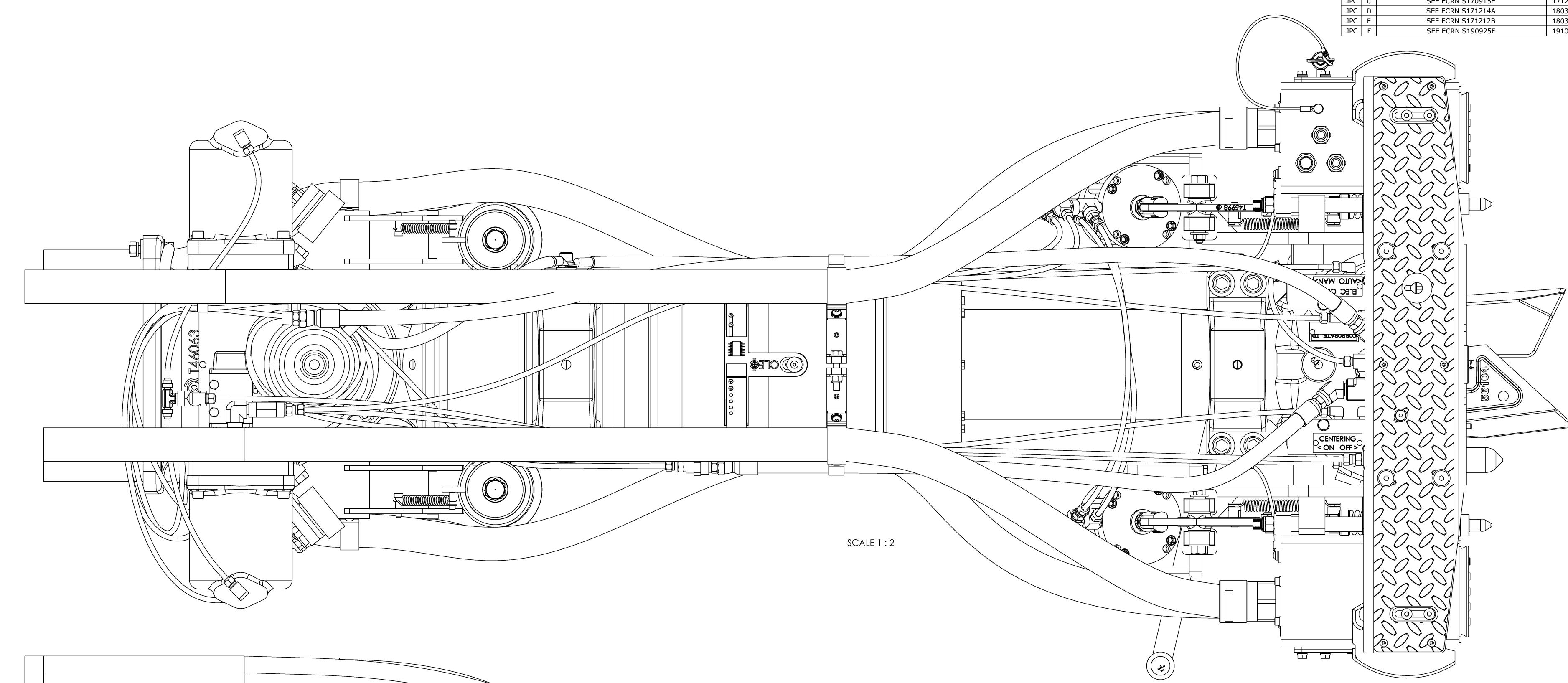


ITEM	DESCRIPTION	QTY.	CODIFICATION STANDARD	MATERIAL REFERENCE	WEIGHT [kg]	DIMENS [mm]
NEXT HIGHER ASSEMBLY	Green Line Type 9 Light Rail Vehicle Contract No. FC 676					
	CAF					
GENERAL TOLERANCES	Massachusetts Bay Transportation Authority					
DRAWN:	2016/03/31	13776	DATE:	NAME:		
CHECKED:	2016/03/31	14686				
APPROVED:	2016/03/31	14554	SIZE:	THIRD ANGLE PROJ. DRAWING N°:		
			D	0.51.18.005	REV:	B
			CHECKED:	2019/10/31	14686	
			APPROVED:	2019/10/31	14686	
			SCALE:	-	WEIGHT [kg]:	395.00
					SHEET:	2 OF 4

REV	ECOS	DESCRIPTION	DATE	NAME
A	00038691	UPDATED	2018/08/21	14367
B	00190794	DRAWING UPDATED	2019/10/31	14686

D

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ALL REVISIONS REQUIRE SAFETY
ENGINEERS REVIEW AND APPROVAL.
JPC 3/21/2016

DO NOT SCALE PRINT
DIMENSIONS ARE IN INCHES
DIMENSIONS IN () ARE IN MM
CAD DRAWINGS DO NOT REVEAL MANUALLY
© 2016 FAIVELEY WPT HOLDING CORP
DRAWING CONFORMS TO ASME STANDARD
Y14.5M-1994 OR LATEST

FAIVELEY WPT
A Wabtec Company

COUPLER-REGENERATIVE
OUTLINE

DRAWING NO. 1-59434

SCALE 1:3

DATE 00

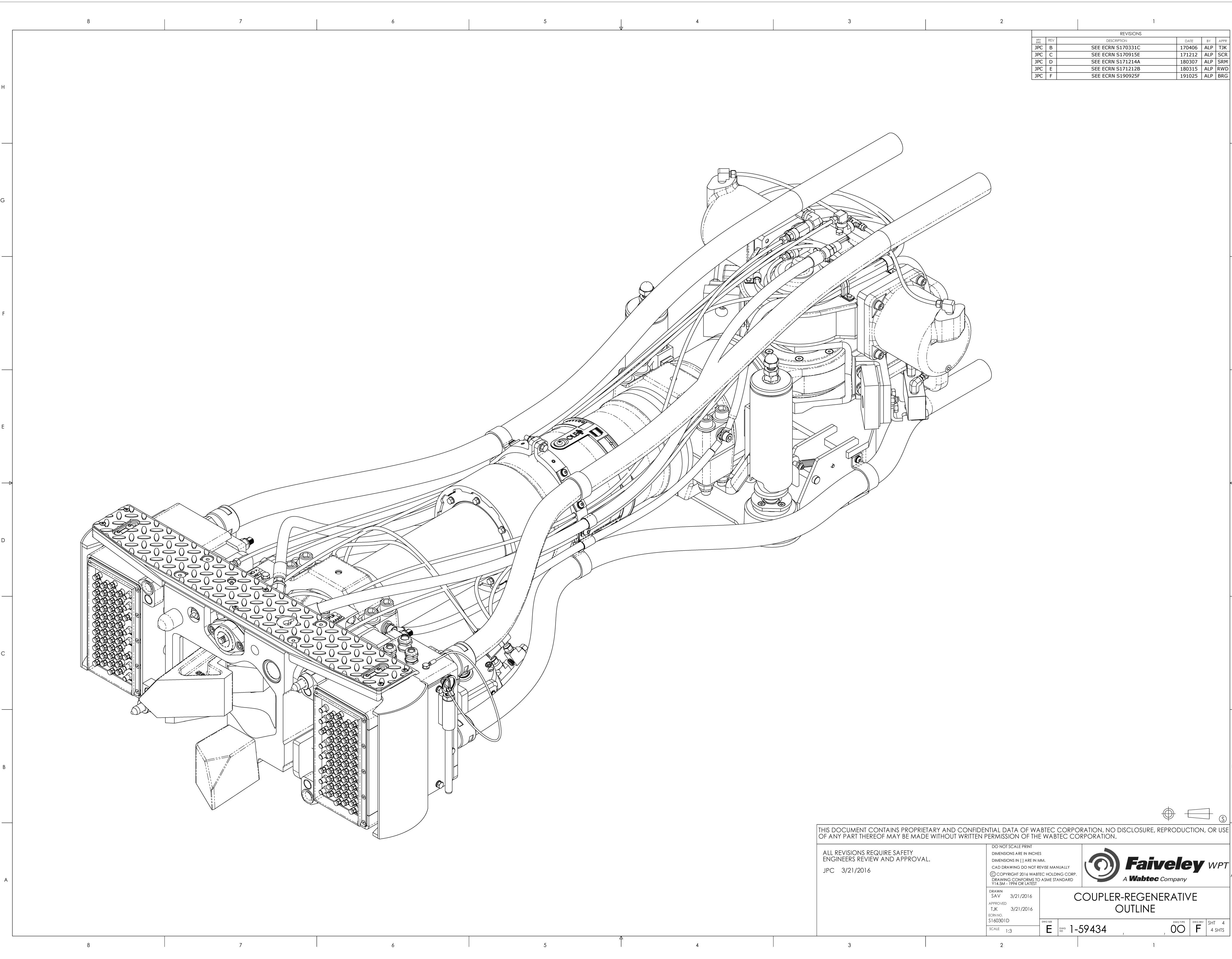
TIME 00

SH. 3

4 SHTS

ITEM	DESCRIPTION	QTY.	CODIFICATION STANDARD	MATERIAL REFERENCE	WEIGHT [kg]	DIMENS [mm]
NEXT HIGHER ASSEMBLY	Green Line 0.51.18.000.00					
GENERAL TOLERANCES	Green Line Type 9 Light Rail Vehicle Contract No. FC 676					
	Massachusetts Bay Transportation Authority					
DRAWN:	DATE: 2016/03/31	NAME: 13776				
CHECKED:	2016/03/31	14686				
APPROVED:	2016/03/31	14554				
	SIZE: D	THIRD ANGLE PROJ. DRAWING N°: 0.51.18.005	REV: B			
	CHECKED:	2016/03/31				
	APPROVED:	2016/03/31				

REV	ECOS	DESCRIPTION	DATE	NAME
A	00038691	UPDATED	2018/08/21	14367
B	00190794	DRAWING UPDATED	2019/10/31	14686



ITEM	DESCRIPTION	QTY.	CODIFICATION STANDARD	MATERIAL REFERENCE	WEIGHT [kg]	DIMENS [mm]
NEXT HIGHER ASSEMBLY	Green Line Type 9 Light Rail Vehicle Contract No. FC 676	1	CONSTRUCCIONES Y AUXILIAR DE FERROCARRILES, S.A. BEASAIN (GIPUZKOA)			
GENERAL TOLERANCES	Massachusetts Bay Transportation Authority	1				
		DATE: NAME:				
DRAWN: 2015-10-16	13776	13776				
Unless otherwise specified drawing per:	0.51.94.002.00					
CHECKED: 2015-10-16	14686	14686				
APPROVED: 2015-10-16	14554	14554				
SCALE: -	WEIGHT [kg]: 395.0	4 OF 4				

D-49023-C

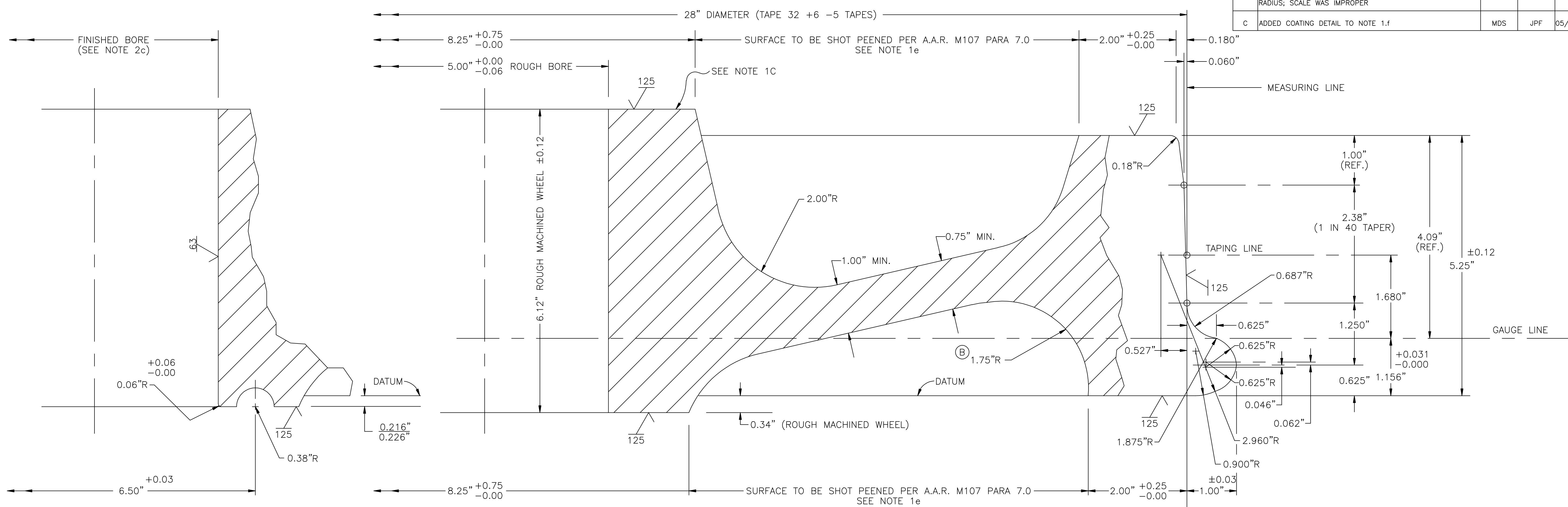
DWG. NO.

D-49023-C

DWG. NO.

REVISIONS

REV.	DESCRIPTION	DWN. BY	APP'D	DATE
A	NOTE 3: CHANGED HAWKER-SIDDELEY DRAWING NO. 20-110-000691 TO 20-110-000607	DCB	JNS FMV	08/18/95
B	CHANGED "HEAT NUMBER" TO "CLASS OF HEAT TREATMENT" IN NOTE 1c. CORRECTED GRAPHICS OF FLANGE SIDE 1.75" PLATE-TO-RIM RADIUS; SCALE WAS IMPROPER	DCB	PHM JNS	01/05/98
C	ADDED COATING DETAIL TO NOTE 1f	MDS	JPF	05/14/12



NOTES:

1. ROUGH BORED WHEEL REQUIREMENTS:

a. WHEEL TO BE IN ACCORDANCE WITH SPECIFICATION A.A.R. M-107 LATEST REVISIONS- CLASS B, WITH EXCEPTIONS AS NOTED ON THIS DRAWING.

b. NOT MORE THAN 25% OF ANY LOT OF WHEELS TO BE LESS THAN TAPE 32.

c. ON FACE WHERE INDICATED, STAMP THE FOLLOWING INFORMATION IN FIGURES AT LEAST 0.38 INCHES HIGH:

DATE OF MANUFACTURE
 MANUFACTURER'S NAME OR BRAND
 MANUFACTURER'S SERIAL NUMBER
 CLASS OF HEAT TREATMENT

d. ENTIRE FLANGE AND TREAD AREA TO BE MACHINED TO 125 MICRO-INCH FINISH.

e. AFTER ALL MACHINING AND CLEANING, SHOT PEEN ONLY THE SURFACES INDICATED INCLUDING THE ENTIRE RIM FILLET, PLATE, AND HUB FILLET AREAS, PER SPECIFICATION AMS 2430, LATEST REVISION, WITH INTENSITY EQUIVALENT TO 12A. DO NOT SHOT PEEN TREAD AND FLANGE AREAS.

f. WHEELS SHALL BE COATED WITH AAR APPROVED TECTYL 506 EH-WD OR APPROVED EQUAL (WITH THE APPROVAL COMING FROM THE MBTA). PROTECTIVE COATINGS APPLIED AFTER SHOT PEENING.

g. WHEELS TO BE PACKAGED IN AXLE SETS OF TWO. EACH MATCHED PAIR TO BE THE SAME TAPE SIZE AS DEFINED IN A.A.R. VOLUME G, PART 2, RULE 1E6.

h. TAPE SIZE TO BE STENCILLED ON WHEEL TREAD WITH PAINT IN SUCH A MANNER THAT MARKING WILL BE LEGIBLE IN THE SHIPPING CONTAINER, UPON RECEIPT AT DESTINATION.

i. FOR COMPLETE PACKING AND SHIPPING REQUIREMENTS, REFER TO MBTA DRAWING NO. B-36946. OTHER PACKING METHODS WILL BE CONSIDERED.

2. WHEEL - AXLE ASSEMBLY SHOP REQUIREMENTS:

a. FINISH BORE, FINISH BACK OF HUB, HUB STRESS RELIEF GROOVE, AND FINISH BACK OF FLANGE ARE TO BE MACHINED ON SAME MACHINE SET UP. MACHINE TO MAXIMIZE FLANGE THICKNESS.

b. FINISH BORE TO BE MACHINED TO 63 MICRO-INCH FINISH.

c. FINISHED BORE TO BE MACHINED TO PROVIDE PROPER FIT OF AXLE PRIOR TO ASSEMBLY. SEE MBTA DRAWING NO. D-39221 FOR REQUIRED WHEEL PRESSING TONNAGES.

d. FINISH BORE TO BE PERPENDICULAR TO PLANE OF BACK OF FLANGE WITHIN 0.005" T.I.R., TO BACK OF HUB FACE WITHIN 0.002" T.I.R., AND CONCENTRIC WITH TREAD AT PLANE OF TAPING LINE WITHIN 0.005" T.I.R.

e. HUB BACK FACE AND STRESS RELIEF GROOVE TO BE MACHINED TO 125 MICRO-INCH FINISH.

f. BACK RIM FACE AND FRONT RIM FACE SHALL BE PARALLEL WITHIN 0.005" T.I.R.

A 3. THIS DRAWING SUPERSEDES HAWKER-SIDDELEY DRAWING 20-110-000607, REV. "R", AND UTDC DRAWING 20-110-001292, REV. "C".

4. TOLERANCING AND TAPE DIAMETER MADE CONSISTENT WITH BOMBARDIER INC. DRAWING BSK-9274-1, REV. "C", FOR WHEEL FOR NO.3 RLRT CARS.

5. MBTA STOCK NUMBER 009-01-026.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES: UNLESS OTHERWISE SPECIFIED					MASSACHUSETTS BAY TRANSPORTATION AUTHORITY
FRAC ± 1/64 XX ± 0.1 XXX ± 0.03 XXXX ± 0.015 ANG ± 1/2°					EQUIPMENT ENGINEERING AND QUALITY ASSURANCE
USED ON NO.1 SSRT, NO.2 RLRT, NO.4 EBRT & NO.12 MLRT CARS					DRAWN L.J.RESTUCCIA
NEXT ASS'Y 20-110-000934-2 (NO.1 SSRT & NO.2 RLRT) 20-110-000691-6 (NO.4 EBRT & NO.12 MLRT)					CHECKED A.KOTSIOPoulos
APPROVED F.M.VALLEY					ENGINEER J.N.SISSON
DIR: EEQASHRD\DWGS\49000 FILE: 49023-1-C.DWG XREF: NONE					SCALE FULL
DATE 08/15/95					SIZE D DWG. NO. 49023 REV C
SHEET 1 OF 1					A

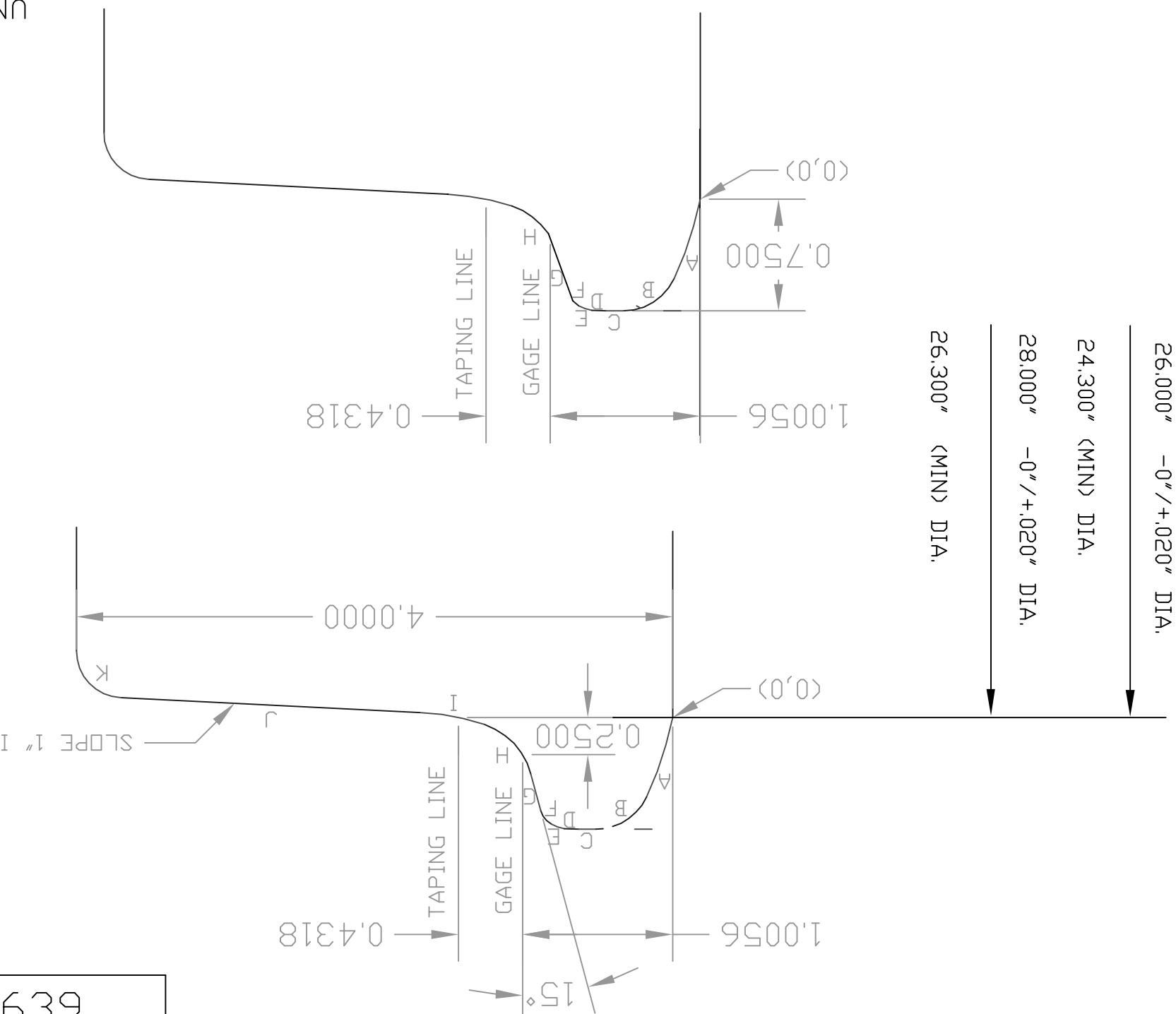
WHEEL - 28" RTL

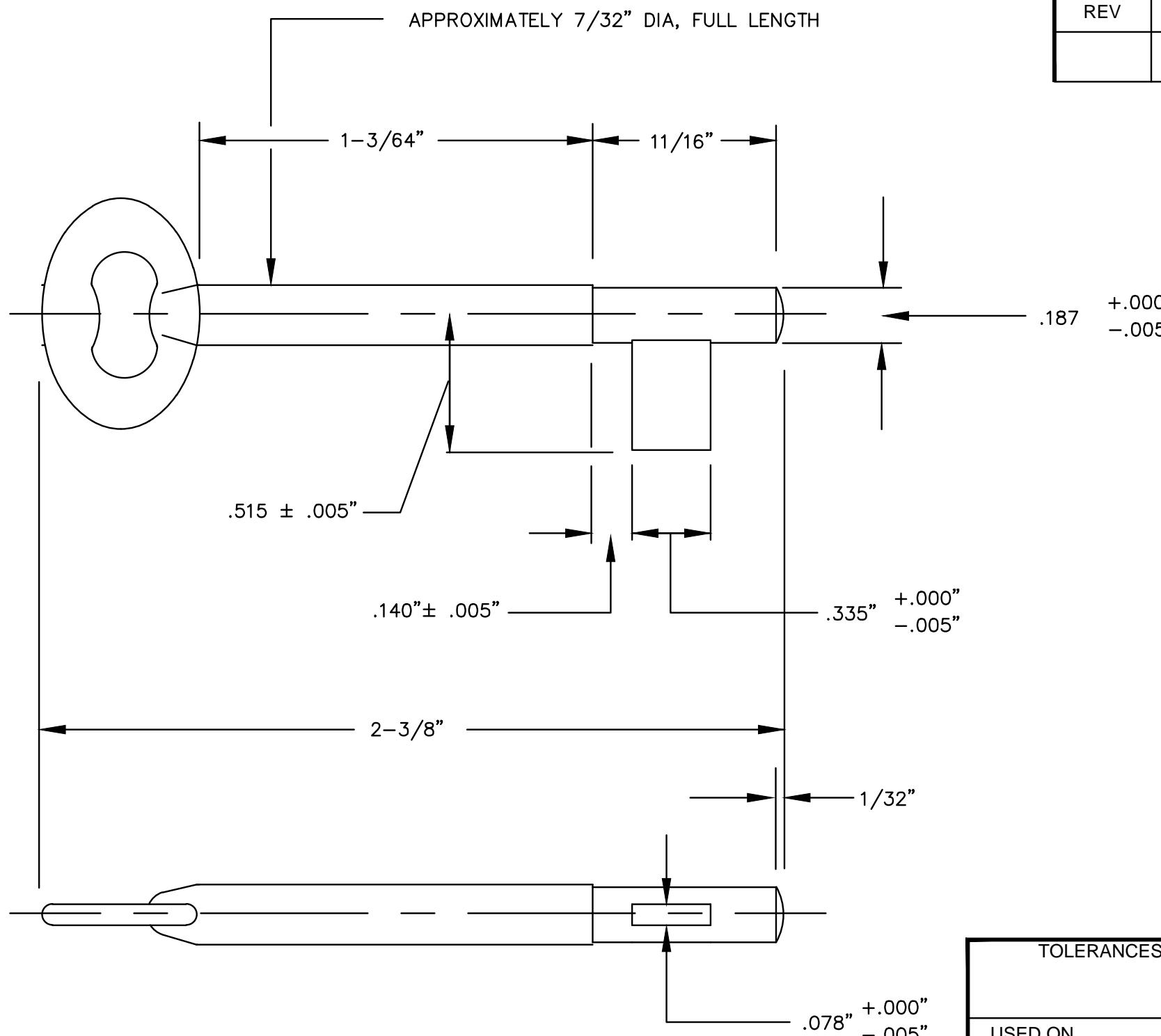
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY		GREEN LINE VEHICLE ENGINEERING		TOLERANCES OTHERWISE SPECIFIED		FRAC. #1/64	DEC. #.005	ANG. #1/2°	LESS OTHERWISE SPECIFIED	NOTES
NO. 7 SRC (3600-3719)		NO. 8 LFC (3800-3899)		EXT ASS'Y						
GREEN LINE		WHEEL PROFILE		ENGINEER LAT		APPROVED LAT		SCALE FULL		SIZE B
DRAWN LAT		CHECKED LAT		ENGINEER LAT		APPROVED LAT		DRAWN LAT		DATE 10/6/93
TITLE		TITLE		TITLE		TITLE		TITLE		DRAWN NO. 47639
SED ON		NO. 7 SRC (3600-3719)		NO. 8 LFC (3800-3899)		EXT ASS'Y		REV D		SHTR. 1- OF 1--

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN INCHES

INDEX	RADIUS	OF	CENTER	TITLE	X, Y (0.0,0.0)
1	3279	-0.4705	2.3750	5154	0.3750 0.3750
2	6298	-0.1765	0.9265	7027	0.5249 0.2213
3	7366	0.5838	0.1534	4125	0.5011 0.4781
4	7781	1.6127	1.6482	7781	0.5154 0.7500
5	0.6298	0.7255	0.7450	5	0.7255 0.7450
6	0.8131	0.7167	0.7167	6	0.8131 0.7167
7	0.8847	0.6235	0.9500	8	0.6235 0.9500
8	1.2631	0.0469	0.3800	9	1.2631 0.0469
9	1.6957	-0.0335	3.7031	11	1.6957 -0.0335
10	4.0000	-0.4461	3.7031	12	4.0000 -0.4461
INT	X	Y	X, Y (0.0,0.0)	END POINTS	ARC TITLE

MIN. 0 TO 24,300. END DWG. TO AUTOCAD. ADDED GREEN LINE" TO TITLE. TO "C" SIZED DRAWING. TO "C" SIZED DRAWING. TO TCI IWP WITH 1:20 TAPE, ED PROFILE DIMENSIONING AND FULL SCALE





Ref: MBTA Dwg. 34548

REVISIONS			
REV	DESCRIPTION	DWN BY	DATE

	MASSACHUSETTS BAY TRANSPORTATION AUTHORITY		
	VEHICLE ENGINEERING		
Title:			
STANDARD DOOR KEY			
TOLERANCES			
USED ON			
NEXT ASS'Y			
SCALE: NTS	DRAWN BY:	DESIGN BY:	CHECKED BY:
DWG No. VE-09-029-2	REV		
DATE: 3/25/2010			